

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (Canceled).

11. (Currently Amended) ~~The color combining optical system according to claim 10;~~

A color combining optical system, which combines a first color light and a second color light, comprising:

a polarization color combining film made of a multilayer film;

wherein the polarization color combining film combines a first polarization component of the first color light and a second polarization component of the second color light, which has a polarization direction substantially perpendicular to the first polarization component, with an efficiency of 90% or more in a predetermined incidence angle range;

wherein the color combining optical system combines the first color light and the second color light, respectively coming from a first and a second image forming element forming an original image, with a third color light from a third image forming element forming an original image, and guides the combined light to a projection optical system;

wherein the color combining optical system further comprises a first and a second analyzing member;

wherein the first color light is guided via the first analyzing member and the polarization color combining film to the projection optical system, and the second color light and the third color light is guided via the second analyzing member and the polarization color combining film to the projection optical system;

wherein the first color light is light of a first wavelength region of 500 to 570 nm, the second color light is light of a second wavelength region of 430 to 480 nm, and the third color light is light of a third wavelength region of 590 to 650 nm;

wherein, when an incidence angle of the light incident on the polarization color combining film is $45^{\circ} \pm 5^{\circ}$, then a transmittance of the polarization color combining film in the first wavelength region is 90% or more and a reflectance of the polarization color

combining film in the second wavelength region and the third wavelength region is 90% or more; and

wherein the polarization color combining film transmits 65% or more of P-polarized light and reflects 65% or more of S-polarized light, which are in the visible wavelength region and incident in the predetermined incidence angle region, and the following conditions are satisfied:

$$R_{p1}/R_{p2} < 0.5$$

$$R_{p1}/R_{p3} < 0.5$$

where R_{p1} is an average reflectance for P-polarized light in the first wavelength region, R_{p2} is an average reflectance for P-polarized light in the second wavelength region, and R_{p3} is an average reflectance for P-polarized light in the third wavelength region, and

$$T_{s2}/T_{s1} < 0.5$$

$$T_{s3}/T_{s1} < 0.5$$

where T_{s1} is an average transmittance for S-polarized light in the first wavelength region, T_{s2} is an average transmittance for S-polarized light in the second wavelength region, and T_{s3} is an average transmittance for S-polarized light in the third wavelength region.

12. (Original) The color combining optical system according to claim 11,
wherein the polarization color combining film transmits 75% or more of P-polarized light which is in the visible wavelength region and incident in the predetermined incidence angle region.

13. (Original) The color combining optical system according to claim 11,
wherein the polarization color combining film reflects 75% or more of the S-polarized light which is the visible wavelength region and incident in the predetermined incidence angle region.

14. (Canceled).

15. (Currently Amended) ~~The color combining optical system according to claim 14, A~~
color combining optical system, which combines a first color light and a second color light, comprising:

a polarization color combining film made of a multilayer film;
wherein the polarization color combining film combines a first polarization
component of the first color light and a second polarization component of the second color
light, which has a polarization direction substantially perpendicular to the first polarization
component, with an efficiency of 90% or more in a predetermined incidence angle range;
wherein the color combining optical system combines the first color light and the
second color light, respectively coming from a first and a second image forming element
forming an original image, with a third color light from a third image forming element
forming an original image, and guides the combined light to a projection optical system;
wherein the color combining optical system further comprises a first and a second
analyzing member;
wherein the first color light is guided via the first analyzing member and the
polarization color combining film to the projection optical system, and the second color light
and the third color light is guided via the second analyzing member and the polarization color
combining film to the projection optical system;
wherein the first color light is the light of a first wavelength region of 500 to 570 nm,
the second color light is light of a second wavelength region of 430 to 480 nm, and the third
color light is light of a third wavelength region of 590 to 650 nm;
wherein, when the incidence angle of the light incident on the polarization color
combining film is $45^{\circ} \pm 5^{\circ}$, then a reflectance of the polarization color combining film in the
first wavelength region is 90% or more and the transmittance of the polarization color
combining film in the second wavelength region and the third wavelength is 90% or more;
wherein the polarization color combining film transmits 65% or more of P-polarized
light and reflects 65% or more of S-polarized light, which are incident in the predetermined
incidence angle region, and the following conditions are satisfied:
$$R_{p2}/R_{p1} < 0.5$$
$$R_{p3}/R_{p1} < 0.5$$
where R_{p1} is an average reflectance for P-polarized light in the first wavelength region, R_{p2}
is an average reflectance for P-polarized light in the second wavelength region, and R_{p3} is an
average reflectance for P-polarized light in the third wavelength region, and
$$T_{s1}/T_{s2} < 0.5$$
$$T_{s1}/T_{s3} < 0.5$$

where Ts1 is an average transmittance for S-polarized light in the first wavelength region, Ts2 is an average transmittance for S-polarized light in the second wavelength region, and Ts3 is an average transmittance for S-polarized light in the third wavelength region.

16. (Original) The color combining optical system according to claim 15,
wherein the polarization color combining film transmits 75% or more of P-polarized light which is in the visible wavelength region and incident in the predetermined incidence angle region.

17. (Original) The color combining optical system according to claim 15,
wherein the polarization color combining film reflects 75% or more of S-polarized light which is in the visible wavelength region and incident in the predetermined incidence angle region.

18. (Currently Amended) An image projection apparatus, comprising:
a light source;
a color separating optical system which separates light from the light source into at least a first color light and a second color light;
at least two image forming elements;
a color combining optical system according to claim 11 ~~claim 1~~, which combines the first color light and the second color light from the image forming elements; and
a projection optical system which projects light combined by the color combining optical system.

19. (Original) The image projection apparatus according to claim 18,
wherein the image forming elements are reflective image forming elements.

20. (NEW) An image projection apparatus, comprising:
a light source;
a color separating optical system which separates light from the light source into at least a first color light and a second color light;
at least two image forming elements;

a color combining optical system according to claim 15, which combines the first color light and the second color light from the image forming elements; and

a projection optical system which projects light combined by the color combining optical system.

21. (NEW) The image projection apparatus according to claim 20,
wherein the image forming elements are reflective image forming elements.